

Application Number 10/698,881
Amendment responsive to final Office Action mailed May 21, 2007

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently amended): A method of providing medical therapy to a patient, the method comprising delivering one or more therapeutic stimulation pulses to tissue of a prostate gland via an implantable medical device, wherein the implantable medical device includes one or more electrodes that are deployed on or implanted within cellular muscle tissue of the prostate gland, and wherein the therapeutic stimulation pulses delivered to the tissue of the prostate gland are defined to treat sexual dysfunction by one or more of the following:

- causing erection;
- causing ejaculation;
- preventing ejaculation;
- preventing premature ejaculation; and
- causing erection and preventing premature ejaculation.

Claims 2-3 (Canceled).

Claim 4 (Previously Presented): The method of claim 1, wherein the pulses define pulse widths between approximately 180 and 450 microseconds, amplitudes between approximately 1 and 10 volts, and frequencies between approximately 50 and 100 hertz.

Claim 5 (Previously Presented): The method of claim 1, wherein the therapeutic stimulation pulses cause erection.

Claim 6 (Previously Presented): The method of claim 1, wherein the therapeutic stimulation pulses cause ejaculation.

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Claim 7 (Previously Presented): The method of claim 1, wherein the therapeutic stimulation pulses prevent ejaculation.

Claim 8 (Previously Presented): The method of claim 1, wherein the therapeutic stimulation pulses prevent premature ejaculation.

Claim 9 (Previously Presented): The method of claim 1, wherein the therapeutic stimulation pulses cause erection and prevent premature ejaculation.

Claim 10 (Original): The method of claim 1, further comprising delivering the one or more therapeutic stimulation pulses in response to telemetry signals from a patient programmer.

Claim 11 (Original): The method of claim 1, further comprising delivering the one or more therapeutic stimulation pulses in response to sensed physiological conditions.

Claims 12-17 (Canceled).

Claim 18 (Original): The method of claim 1, further comprising delivering drugs to the prostate gland in conjunction with delivering the one or more therapeutic stimulation pulses.

Claim 19 (Currently amended): A method of providing medical therapy to a patient, the method comprising delivering a training sequence of stimulation pulses to a prostate gland via an implantable medical device, wherein the implantable medical device includes one or more electrodes that are deployed on or implanted within cellular muscle tissue of the prostate gland, the training sequence being defined to change a fiber structure of the prostate gland, wherein the training sequence defines a first pulse train and a second pulse train, wherein the first pulse train and the second pulse train are each delivered over time periods on an order of a week, the second pulse train being delivered after the first pulse train, wherein the second pulse train includes more pulses per unit time than the first pulse train.

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Claim 20 (Original): The method of claim 19, further comprising delivering the training sequence to relax the fiber structure of the prostate gland.

Claim 21 (Original): The method of claim 19, wherein the pulses define pulse widths between approximately 10 and 500 microseconds, amplitudes less than approximately 10.5 volts, frequencies between approximately 2 and 20 hertz, and pulse intervals between approximately 10 and 500 milliseconds.

Claim 22 (Original): The method of claim 19, further comprising delivering drugs to the prostate gland in conjunction with delivering the one or more therapeutic stimulation pulses.

Claim 23 (Canceled).

Claim 24 (Currently amended): An implanted ~~implantable~~ medical device comprising:

one or more leads including one or more electrodes ~~for implantation adjacent a prostate gland, wherein the one or more electrodes are deployed on or implanted within cellular muscle tissue of the prostate gland;~~

a pulse generator to generate therapeutic stimulation pulses and deliver the pulses to the one or more electrodes deployed on or implanted within cellular muscle tissue of the prostate gland via the one or more leads; and

a processor to control the therapy delivery circuit such that the therapeutic stimulation pulses define a training sequence which causes a fiber structure of the prostate gland to change, wherein the training sequence defines a first pulse train and a second pulse train, wherein the first pulse train and the second pulse train are each delivered over time periods on an order of a week, the second pulse train being delivered after the first pulse train, wherein the second pulse train includes more pulses per unit time than the first pulse train.

Claim 25 (Currently amended): The implanted ~~implantable~~ medical device of claim 24, wherein the training sequence causes the fiber structure of the prostate gland to relax.

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Claim 26 (Canceled).

Claim 27 (Currently amended): The ~~implanted implantable~~ medical device of claim 24, wherein the pulses define pulse widths between approximately 10 and 500 microseconds, amplitudes less than approximately 10.5 volts, frequencies between approximately 2 and 20 hertz, and pulse intervals between approximately 10 and 500 milliseconds.

Claim 28 (Currently amended): An ~~implanted implantable~~ medical device comprising:
means for generating a training sequence of therapeutic stimulation pulses;
means for delivering the training sequence of therapeutic stimulation pulses to a prostate gland such that the training sequence of therapeutic stimulation pulses cause a fiber structure of the prostate gland to change, wherein the training sequence defines a first pulse train and a second pulse train, wherein the first pulse train and the second pulse train are each delivered over time periods on an order of a week, the second pulse train being delivered after the first pulse train, wherein the second pulse train includes more pulses per unit time than the first pulse train, wherein means for delivering the training sequence includes one or more electrodes that are deployed on or implanted within cellular muscle tissue of the prostate gland.

Claim 29 (Currently amended): The ~~implanted implantable~~ medical device of claim 28, wherein the training sequence of therapeutic stimulation pulses cause the fiber structure of the prostate gland to relax.

Claim 30 (Currently amended): A system comprising:
an ~~implanted implantable~~ medical device that delivers stimulation pulses to a prostate gland via one or more electrodes that are deployed on or implanted within cellular muscle tissue of the prostate gland; and
an agent pump that delivers agents to the prostate gland, wherein the ~~implanted implantable~~ medical device and agent pump are programmed to deliver the stimulation pulses and the agents to the prostate gland in a complimentary fashion such that the stimulation pulses trigger the agents or the agents improve the effect of the stimulation pulses.

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Claim 31 (Original): The system of claim 30, wherein the stimulation pulses define a training sequence which in conjunction with the agents, causes a fiber structure of the prostate gland to change.

Claim 32 (Original): The system of claim 30, wherein the agent pump comprises an implantable drug pump (IDP).

Claim 33 (Currently amended): A method of providing medical therapy to a patient, the method comprising:

delivering a first pulse train to a prostate gland over a first period of time; and
delivering a second pulse train to the prostate gland over a second period of time, wherein the second pulse train is different than the first pulse train, and wherein delivering the first and second pulse trains causes a fiber structure of the prostate gland to change, wherein the first pulse train and the second pulse train are each delivered over time periods on an order of a week, wherein the first and second pulse trains are delivered via one or more electrodes deployed on or implanted within cellular muscle tissue of the prostate gland.

Claim 34 (Original): The method of claim 33, wherein the second pulse train defines a pulse rate that is higher than that of the first pulse train.

Claim 35 (Original): The method of claim 33, further comprising delivering a third pulse train to the prostate gland over a third period of time, wherein the third pulse train is different than the first or second pulse train, and wherein delivering the first, second and third pulse trains causes a fiber structure of the prostate gland to change.

Claim 36 (Original): The method of claim 35, further comprising delivering a fourth pulse train to the prostate gland over a fourth period of time, wherein the fourth pulse train is different than the first, second or third pulse train, and wherein delivering the first, second, third and fourth pulse trains causes a fiber structure of the prostate gland to change.

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Claim 37 (Original): The method of claim 36, wherein the fourth pulse train defines a fourth pulse rate that is higher than that of the third pulse train, the third pulse train defines a third pulse rate that is higher than that of the second pulse train and the second pulse train defines a second pulse rate that is higher than that of the first pulse train.

Claim 38 (Currently amended): An implanted implantable medical device comprising:
a stimulator that delivers stimulation pulses to a prostate gland via one or more electrodes that are deployed on or implanted within cellular muscle tissue of the prostate gland; and
an agent pump that delivers agents to the prostate gland, wherein the stimulator and agent pump are programmed to deliver the stimulation pulses and the agents to the prostate gland in a complimentary fashion such that the stimulation pulses trigger the agents or the agents improve the effect of the stimulation pulses.

Claim 39 (Original): The device of claim 38, wherein the stimulation pulses define a training sequence which in conjunction with the agents, causes a fiber structure of the prostate gland to change.

Claim 40 (New): The device of claim 38, wherein the stimulator and agent pump are programmed to deliver the stimulation pulses and the agents to the prostate gland simultaneously.

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Claim 41 (New): An implantable medical device comprising:

one or more leads including one or more electrodes for implantation adjacent a prostate gland within cellular muscle tissue of the prostate gland;

a pulse generator to generate therapeutic stimulation pulses and deliver the pulses to the one or more electrodes via the one or more leads; and

a processor to control the therapy delivery circuit such that the therapeutic stimulation pulses define a training sequence which causes a fiber structure of the prostate gland to change, wherein the training sequence defines a first pulse train and a second pulse train, wherein the first pulse train and the second pulse train are each delivered over time periods on an order of a week, the second pulse train being delivered after the first pulse train, wherein the second pulse train includes more pulses per unit time than the first pulse train.

Claim 42 (New): The implantable medical device of claim 41, wherein the training sequence causes the fiber structure of the prostate gland to relax.